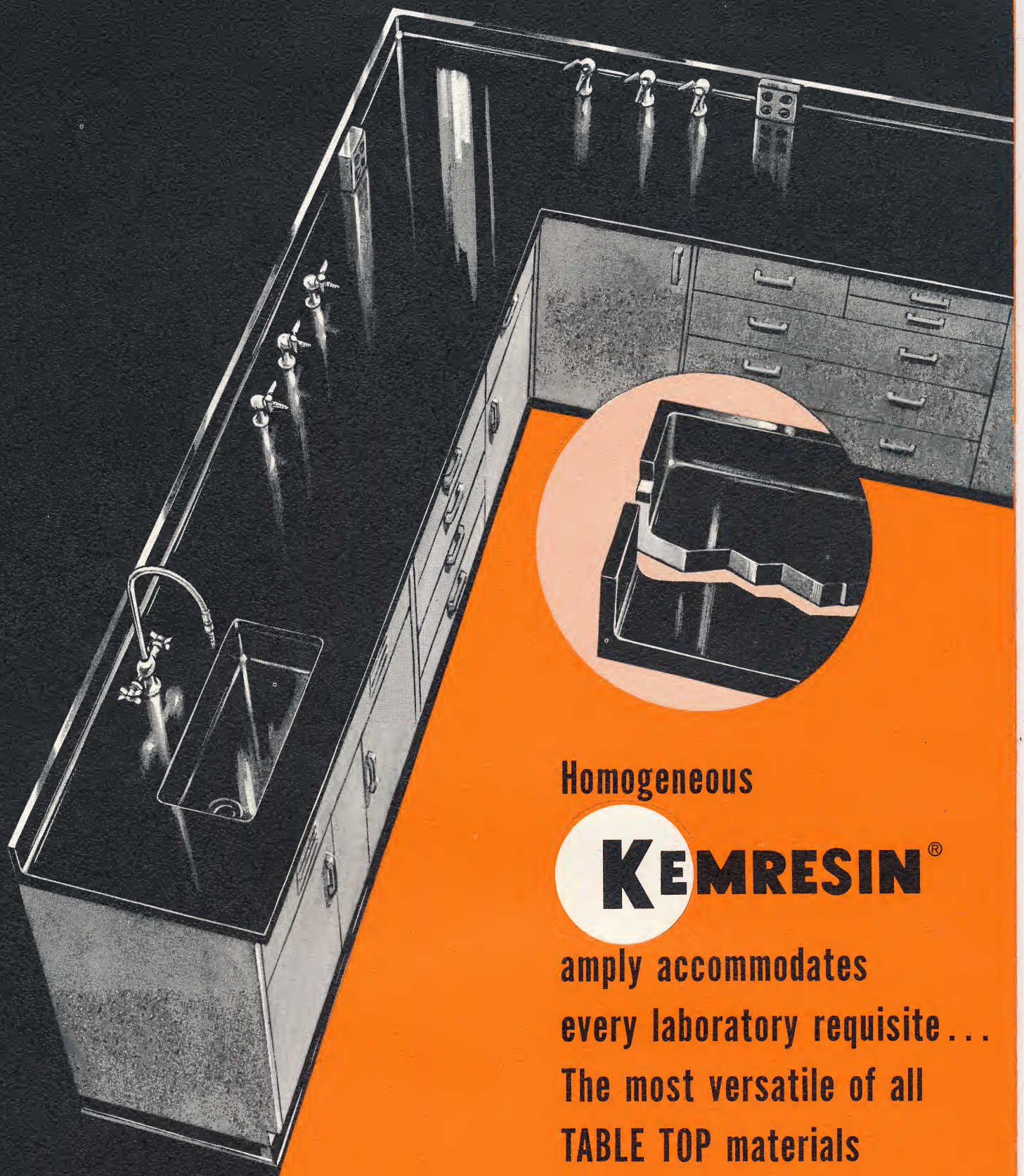


Homogeneous

# KEMRESIN®

amply accommodates
every laboratory requisite...
The most versatile of all
TABLE TOP materials

KEWAUNEE TECHNICAL FURNITURE CO., STATESVILLE, N.C. • KEWAUNEE MANUFACTURING CO., ADRIAN, MICHIGAN

# Reformulated KEMRESIN®

## for Table Tops has these advantages:

**1. Kemresin is a unique thermosetting material.** Ideal for laboratory furniture tops because it is made from a highly chemical resistant, especially formulated modified epoxy resin.

**2. Kemresin is a homogeneous material.** It does not depend on a surface coating which can be easily removed or damaged by chemical or physical abuse.

**3. Kemresin has a high chemical resistance.** Even though samples were immersed for seven days in fifty of the most abrasive harmful chemicals found in advanced science laboratories, the weight loss or gain was practically negligible.

**4. Kemresin's extremely low absorption rate** (0.03 percent by weight in 48 hours)—makes it ideal for laboratory table tops—this ability is a determining factor in the usable life span of a table top.

**5. Kemresin is stain resisting** because of its low absorption rate and even though some exposures may cause stain, it can be easily removed with cleansers or solvents.

**6. Kemresin is highly resistant to heat**—exposures, far beyond normal laboratory expectancy caused no blistering or checking.

**7. Kemresin provides strength factors** to meet the most difficult loading factors (its flexural strength is in excess of 12,000 psi, as compared to 3,000 to 4,000 psi for most table top materials now in use).

**8. Kemresin curbs are cove molded** as an integral part of standard tops, thus eliminating the normal square cornered joint . . . easy to clean . . . no leakage.

# Kemresin provides assured protection against extreme physical and chemical abuse . . .

## PHYSICAL PROPERTIES

| | |
|---|---|
| Flexural Strength (A.S.T.M. Method D790-61) | 12,000 lbs./sq.in. |
| Compressive Strength (A.S.T.M. Method D695-61T) | 35,000 lbs./sq.in. |
| Hardness, Rockwell M (A.S.T.M. Method D785-60T) | 100 |
| Water Absorption, % by Weight (A.S.T.M. Method D570-59aT) | |
| % in 24 hours | 0.02 |
| % in 48 hours | 0.03 |

## HEAT RESISTANCE

1. A high form porcelain crucible, size 0, 15 ml capacity, shall be heated over a Bunsen burner until the crucible bottom attains a dull, red heat. Immediately the hot crucible shall be transferred to the top surface and allowed to cool to room temperature. Upon removal of the cooled crucible, there shall be no blisters, cracks nor any breakdown of the top surface whatsoever.

2. The top surface shall show no blistering or cracking when an overturned ⅜" Bunsen burner, adjusted to a quiet flame with a 1½" inner cone, is allowed to remain on the surface for a period of 5 minutes.

**NOTE:** Where indicated, concentration of reagents is % by weight.

## CHEMICAL RESISTANCE

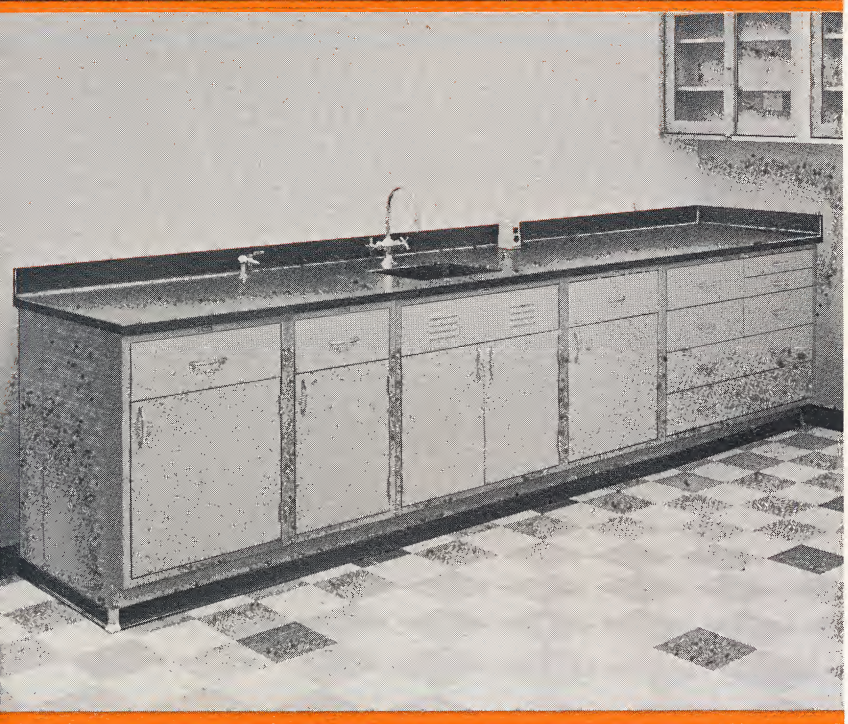
Laboratory controlled immersion tests* were run on the chemicals listed, with a negligible weight change (less than ± 0.1%) due to any of the reagents. These chemicals were selected to be typical of the various acids, alkalies and solvents normally used in laboratories. This relatively minor weight change gives conclusive evidence that Kemresin will be virtually unaffected in normal laboratory use.

*Unconditioned samples of Kemresin were immersed in room temperature solutions of each of the listed chemicals for a period of seven (7) days.

Acetate Acid, Glacial
Acetate Acid, 5%
Acetone
Ammonium Hydroxide, 28%
Ammonium Hydroxide, 10%
Aniline Oil
Benzene
Carbon Tetrachloride
Chromic Acid, 40%
Citric Acid, 10%
Cottonseed Oil
Dichromate Cleaning Solution
Diethyl Ether
Dimethyl Formamide
Distilled Water
Detergent Solution, ¼%
Ethyl Acetate
Ethyl Alcohol, 95%
Ethyl Alcohol, 50%
Ethylene Dichloride
Heptane
Hydrochloric Acid, 37%
Hydrochloric Acid, 10%
Hydrogen Peroxide, 28%
Hydrogen Peroxide, 3%
Iso-Octane
Kerosene
Methyl Alcohol
Mineral Oil
Nitric Acid, 70%
Nitric Acid, 40%
Nitric Acid, 10%
Oleic Acid
Olive Oil
Phenol, 5%
Soap Solution, 1%
Sodium Carbonate, 20%
Sodium Carbonate, 2%
Sodium Chloride, 10%
Sodium Hydroxide, 50%
Sodium Hydroxide, 10%
Sodium Hydroxide, 1%
Sodium Hypochlorite, 5%
Sulfuric Acid, 96%
Sulfuric Acid, 30%
Sulfuric Acid, 3%
Toluene
Transformer Oil
Turpentine

## SPECIFICATIONS

Kemresin tops shall be molded from a modified epoxy resin that has been especially compounded and cured to give optimum physical and chemical resistance properties required of a heavy-duty laboratory table top. Tops and curbs shall be a uniform mixture throughout their full thickness, and shall not depend upon a surface coating that is readily removed by chemical and/or physical abuse. Tops and curbs shall be non-glaring and black in color. Table tops shall be 1¼" thick with drip grooves provided on the underside at all exposed edges. Further, all exposed edges shall be radiused with a ¼" radius on front top edge and at vertical corners. 4" high curbs at the backs and ends of standard 31" and 24" wide tops shall be ¾" thick, and the junction between top and curb shall be coved to a ¾" radius. Curbs on special width tops and around special cutouts shall be 1¼" thick bonded to the surface of the top to form a square joint.



# Test data results* prove Kemresin's superiority

1. The Division of Architecture of one of our larger states recently tested *eighteen* different table top materials. The tests given were on the severe side, so that they could better observe the difference between the various top materials.

Only *three top materials* showed up in one category as being best, *one was Kemresin,* one was a competitive epoxy resin top material and the third was Impregnated Sandstone (Kemrock).

2. A Professor at a large Midwestern University recently tested the ability of Kemresin to be decontaminated after exposure to radioactive materials. *His tests indicated that Kemresin was superior to other top materials in its ability to be decontaminated.* Kemresin did not absorb the radioactive material, and any spillage was easy to decontaminate completely by washing with water and/or 1N HCL.

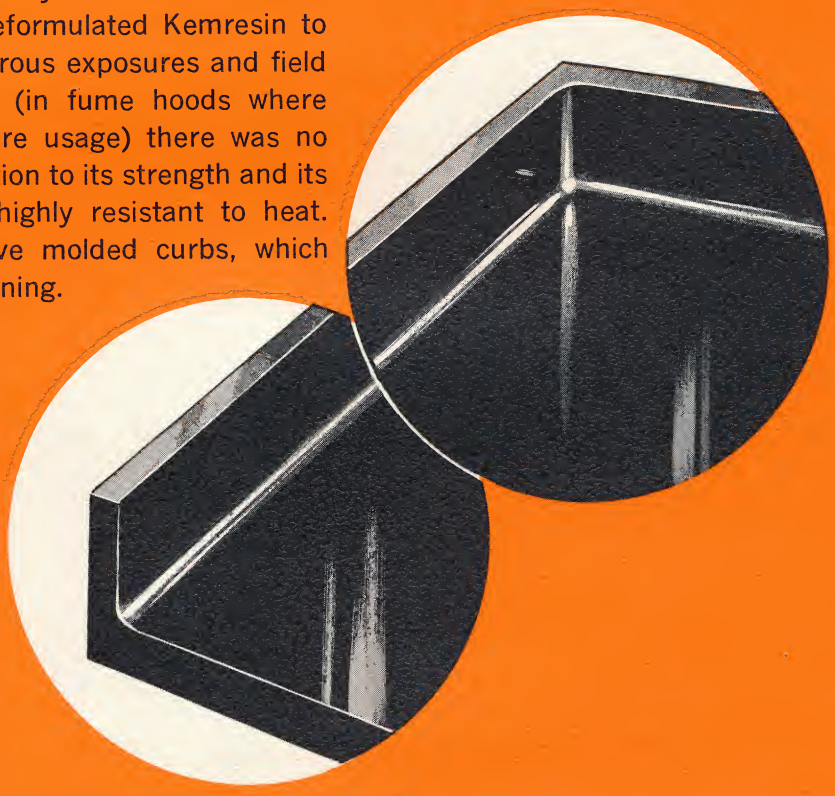
*Test data available upon request.

*Photograph at left shows a dished Kemresin fume hood work top.*

# KEMRESIN®

## was initiated and unequivocally proven in laboratory sinks

The necessity for a tough all-purpose laboratory sink has been recognized by scientists for many years. Kewaunee's awareness of this need prompted the formulation of Kemresin. This unique thermosetting homogeneous material has been chosen for its high chemical resistance and for its molding qualities. Because of Kemresin's outstanding performance as a sink material, its potential for furniture tops was apparent. While the exposures of tops are not identical to sinks, they are closely similar. Therefore, Kewaunee research engineers reformulated Kemresin to serve its new purpose. After rigorous exposures and field tests under extreme conditions (in fume hoods where working surfaces get most severe usage) there was no doubt of its acceptability. In addition to its strength and its chemical resistance, it is also highly resistant to heat. Standard curbed tops have cove molded curbs, which eliminate joints and facilitate cleaning.



# K·T·F

KEWAUNEE TECHNICAL FURNITURE CO.
STATESVILLE, NORTH CAROLINA

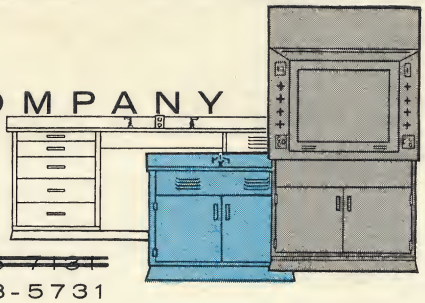
# KEM METAL

KEWAUNEE MFG. CO., ADRIAN, MICHIGAN

Ref. No. 519-666-5M

Printed in U.S.A.

KEWAUNEE MANUFACTURING COMPANY
KEM METAL® MANUFACTURERS OF METAL LABORATORY FURNITURE AND CASEWORK
ADRIAN, MICHIGAN, 49221 · PHONE: AREA CODE 313 · ~~265-7131~~ 263-5731



December 28, 1966

Nelson, Systems Company
Box 1546
Poughkeepsie, New York 12603

Re: Industrial Research

Dear Sir:

Thank you for your recent inquiry about our KEMRESIN Laboratory Table Tops.

Enclosed is a 6-page folder that will supply you with general information on this outstanding, new laboratory table top material. For specific information, our local representative, whose name, address and telephone number are listed below, can be of assistance and can supply you complete usage and specifying details.

We hope the enclosed information will be of interest to you, and that you will consider the use of KEMRESIN laboratory tops and fume hood working surfaces in your laboratory.

Very truly yours,

KEWAUNEE MANUFACTURING COMPANY

W. H. Miller, em

W. H. Miller, General Sales Manager
Metal Furniture Division

WHM:ec

cc: Stanley H. Jansen
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Brooklyn, New York 11236
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